

RAW SEQUENCE LISTING

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Application Serial Number: 10/575,560A
Source: IKWP
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/575,560A

DATE: 11/03/2006
TIME: 10:30:26

Input Set : A:\33412_SEQ_ID.ST25.txt
Output Set: N:\CRF4\11032006\J575560A.raw

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3 <110> APPLICANT: Sandoz GmbH
5 <120> TITLE OF INVENTION: Process for Producing Penicillin
7 <130> FILE REFERENCE: 33412US-PCT
9 <140> CURRENT APPLICATION NUMBER: US/10/575,560A
10 <141> CURRENT FILING DATE: 2006-04-11
12 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/011566
13 <151> PRIOR FILING DATE: 2006-10-14
15 <160> NUMBER OF SEQ ID NOS: 8
17 <170> SOFTWARE: PatentIn version 3.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 411
21 <212> TYPE: PRT
22 <213> ORGANISM: Penicillium chrysogenum
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30 Ile Lys Gln Asn Asp Ile Pro Lys Asp Gln Pro Thr Leu Val Arg Trp
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34 Tyr Met Asp Val Arg Arg Trp Asp Glu Lys Tyr Phe Asp Leu Pro Leu
35 35 40 45
38 Leu Glu Thr Leu Thr Gln Pro Asp Gln Ala Ala Val Lys Lys Tyr Tyr
39 50 55 60
42 Gln Thr Ser Asp Lys Arg Leu Ser Leu Ala Ser Gln Leu Leu Lys Tyr
43 65 70 75 80
46 Tyr Tyr Ile His Gln Ala Thr Gly Thr Pro Trp Ser Lys Ile Glu Ile
47 85 90 95
50 Gln Arg Thr Pro Met Pro Glu Asn Arg Pro Phe Tyr Asp Ser Ser Leu
51 100 105 110
54 Asp Phe Asn Val Ser His Gln Ala Gly Leu Thr Leu Phe Ala Gly Thr
55 115 120 125
58 Arg Ala Ala Thr Ala His Ser Leu Ser Gly Gly Pro Gln Thr Leu Pro
59 130 135 140
62 Arg Val Gly Ile Asp Val Ala Cys Val Asp Glu Pro Ser Arg Arg Arg
63 145 150 155 160
66 Ala Asn Arg Pro Pro Lys Thr Leu Ala Asp Leu Ala Thr Phe Val Asp
67 165 170 175
70 Val Phe Ser Asp Val Leu Ser Leu Arg Glu Leu Ala Thr Ile Lys Asn
71 180 185 190
74 Pro Tyr Ala Thr Leu Lys Leu Ala Arg Glu Leu Gly Leu Asn Lys Ser
75 195 200 205
78 Asp Pro Ser Lys Asp Asp Gln Glu Val Leu Ala Ala Tyr Gly Ile Arg
79 210 215 220
82 Leu Phe Tyr Ser Ile Trp Ala Leu Lys Glu Ala Tyr Leu Lys Met Thr

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90	Val Val Pro Pro Glu Pro Val Gln Thr Val Gly Phe Ala Gly Asp Pro			
91	260	265	270	
94	Ser Ala Thr His Ala Pro Ser Val Gln Asn Trp Gly Arg Pro Tyr Ser			
95	275	280	285	
98	Asp Val Lys Ile Ser Leu Arg Gly Ile Pro Asp His Ser Val Arg Val			
99	290	295	300	
102	Gln Pro Val Gly Phe Glu Ser Asp Tyr Ile Val Ala Thr Ala Ala Ser			
103	305	310	315	320
106	Gly Pro Asn Ile Gly Ser Val Ser Arg Gln Val Val Val Asn Asp Ser			
107	325	330	335	
110	Asp His His Leu Pro Gly Arg Ile Thr Ala Phe Asp Ser Glu Thr Gly			
111	340	345	350	
114	Leu Gln Asn Val Arg Ile Pro Pro Ile Ala Leu Arg Ser Ile Gly Asp			
115	355	360	365	
118	Gly Asp Pro Trp Arg Val Asp Ser Lys Ile Ser Asp Pro Trp Leu Pro			
119	370	375	380	
122	Met Gln Glu Val Asp Ile Glu Ile Asp Ile Arg Pro Cys Ala Asp Gly			
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140	gaccagccca cgttggtccg atggtacatg gatgtcagac gttggatgaaaataacttt		180	
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144	caaACATCGG acaAGCCTGC tgcCTTGGCC tcccAGTTGC tgAAATATTCA ctacattcac		300	
146	caAGCCACTG gcACTCCCTG gagcaAGATT gagATCCAGC gtactccgat gcccggaaat		360	
148	cgaccattct acgattcaag cctggatttc aacgtcagcc atcaggctgg tctcactctg		420	
150	tTCGcaggca cgcgtGCCG aacAGCCAC tccttatccg gtggacctca aacattgcct		480	
152	cgcgtggaa ttgacgttgc gtgtgttgat gaACCCTCTC gtcgtcgTC taatcgtccc		540	
154	ccGAAGACAC ttGCCGACCT tgcaACCTC gtggatgtct tcagtgcacgt tctctcactc		600	
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160	ctgttctact cgattggc tctcaaggag gcttacttga aaatgaccgg agacggcctt		780	
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164	acagtcggat ttgctggta tccttctgcc actcacgcgc cctcggtcca aaattggggc		900	
166	cggccttaact ccgatgtcaa aatctccttg cgtggcattc ctgaccattc tgtgcgcgtt		960	
168	cagctcgTC gcttcgagTC cgactacata gttGCCACGG ccgcgtcgGG ccccaatatt		1020	
170	gatccgtt cgcggcaggt agtctgtaat gacagcgatc accatctgcc agggcgtatc		1080	
172	acagccttcg actctgagac tggactccag aacgtccgca ttcccccaat cgcgttcga		1140	
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191 gaaaaatact ttgatctccc tttgcttcaa accttaacac agcctgatca ggcagctgtc	180
193 aagaagtact atcaaacatc ggacaagcgc ctgtccttgg cctcccaagg tctgaaatat	240
195 tactacattc accaagccac tggcactccc tggagcaaga ttgagatcca gcgtactccg	300
197 atgcccggaaa atcgaccatt ctacgattca agcctggatt tcaacgtcag ccatcaggct	360
199 ggtctcactc tgttcgcagg cacgcgtgcc gcaacagccc actccttac cggtgaccc	420
201 caaacattgc ctgcgttggg aattgacgat ttgatgttgc gctgtgttgc atgaaccctc tcgtcgatcg	480
203 gctaattcgatcc ccccgaaagac acttgcgcac cttgcaacct tcgtggatgt cttcagtgc	540
205 gttctctcac tccgtgagct tgccgaccatc aagaacccgt acgcgactct taaattggct	600
207 cgtgagcttgc gtctgaataa aagtgcacccg agcaaagacg accaggaagt ccttgctgcc	660
209 tacggcattc ggctgttcta ctgcatttgg gctctcaagg aggcttactt gaaaatgacc	720
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213 gaaccagttc aaacagtcgg atttgcgtgtt gatccttcgt ccactcacgc gcctcggtc	840
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217 tctgtgcgcg ttcaagccgtt cggcttcgag tccgactaca tagttgcac ggcgcgtcg	960
219 ggccccaata ttggatccgtt ttcgcggcag gtatgcgtga atgacagcga tcaccatctg	1020
221 ccaggcgtatc acacgacccctt cgactctgatc actggactcc agaacgtccg cattccccc	1080
223 atcgcgcattc gatcaattgg cgatggggac ccctggcgtt tggactcgaa aatcagcgc	1140
225 ccctggctcc ccatgcagga ggtcgatatt gaaatcgata tccggccctg tgccggatgtt	1200
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240 tcggtttgcg atccactctg cataacccac gtattagatc gaattgatata ggactaacc	180
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244 aagacatagt ggtactctcg cttccggca agaccaggcc gtcgcacat ggcgcgtt	300
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248 tcaaaaagctg cacatgctca aagaatgcgc cctgtgggc caggactcca acagtgatag	420
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266 tatcgacacg tgctgataga taaggacccc gataagacgc caacatggct tctatccagg	960
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272	agacaaaaat ggataccaat gatatcaa ac agaatgacat ccccaaggac cagcccacgt	1140
274	tggtccgatg gtacatggat gtcagacgtt gggataaaa atactttgat ctccctttgc	1200
276	ttgaaacctt aacacagcct gatcaggcag ctgtcaagaa gtactatcaa acatcgacaa	1260
278	agcgctgtc cttggcctcc cagttgctga aatattacta cattcaccaaa gccactggca	1320
280	ctccctggag caagattgag atccagcgta ctccgatgcc cgaaaatcga ccattctacg	1380
282	attcaaggcct ggatttcaac gtcagccatc aggctgtct cactctgttc gcaggcagc	1440
284	gtgccgcaac agccccactcc ttatccggtg gacccatc ac attgcctcgc gtgggaattg	1500
286	acgttgcgtg tggatgaa ccctctgtc gtcgtctaa tcgtcccccg aagacacttg	1560
288	ccgaccttgc aacccctgtg gatgtcttca gtgacgttct ctcaactccgt gagcttgcga	1620
290	ccatcaagaa cccgtacgac actcttaat tggctgtga gtttggctg aataaaaagtg	1680
292	acccgagcaa agacgaccag gaagtccttgc ctgcctacgg cattcggctg ttctactcga	1740
294	tttgggctct caaggaggct tacttgaaaa tgaccggaga cggccttctg gcctcttggaa	1800
296	taaaggatct ggaattcaca aacgttgttc cccccaacc agttcaaaaca gtoggatttg	1860
298	ctgggtatcc ttctgccact cacgcgcctt cggtccaaaa ttggggccgg ccttactccg	1920
300	atgtcaaaat ctccctgcgt ggcatttctg accattctgt ggcgtttag ctgcgtcgct	1980
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306	ctgagactcg actccagaac gtcgcattc ccccaatcgc gttcgatca attggagatg	2160
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310	atattgaaat cgatatccgg ccctgtgcgg atggctgtcg cgagcacca cgggatttac	2280
312	caagctttta aattccttct tgctggata tgaccaggcg accatgcacc cgagttattt	2340
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316	cccttgaaca tatttctgca ttgctgtatt gccattagcg aaaattcccg agctagttgt	2460
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320	caatgaatct tcacttcattt ggttccagg tcaatcttcg agatcaatg caagttggcc	2580
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334	gaatttgcgtt gtttgggtt gctctccgtt cttatgggtc ttaatcttgc tgcccgatag	3000
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338	cgcgaatttgg gtttggact tagatttgc tggcgctaga gacgcccgttgc gcgcgagcac	3120
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